

IN THE SPECIFICATION

Page 3, in the paragraph beginning on line 14, change as follows:

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Figure 1B in is a conceptual diagram of a wireless lighting control system using a DALI type of protocol;

Page 3, in the paragraph beginning on line 22, change as follows:

Figure 1 shows a conceptual diagram of an exemplary embodiment of the present invention. The arrangement in Figure 1 is intended to represent use of the techniques of the present invention in a master control computer, such as a remote control device that would be utilized in a wireless embodiment. The computer includes an application software 101 which communicates utilizing the modified version of the DALI protocol 102-114. The lower communications <a href="layer-is-also-layers are-shown as 102-114. The lower the particular techniques utilized therein are not critical to the present invention.

Page 4, in the paragraph beginning on line 6, change as follows:

Figure 1A depicts a representation of a conventional DALI type of lighting standard as used in a practical system. As shown therein, a series of switches 190 191-191-192 interface with a master controller 190 to plural ballasts with DALI interface on board 180-187. Figure 1B depicts a wireless system 198, with a





devices 160-174 as indicated therein. Each button shown on the central controller controls different group of slave devices.

Page 4, in the paragraph beginning on line 11, change as follows:

The physical layer 102-136 of figure 1 and data link layer 103-134 can be built using an open standard such as Bluetooth, RF lite or any other network standards available in the future for low power, low cost wireless data networks. Such standards provide for the reliable transfer of information across the physical link; with the necessary synchronization, error control, and flow control. Then a standardized command set such as a DALI command set layer 104-118 can be stacked above the physical layer 102-136, and data link layer 103-134 and network layer 104-132 as shown. The system also includes an optional applications programming interface 109 (API) 120 as shown.

Page 4, in the paragraph beginning on line 18, change as follows:

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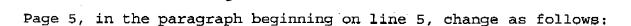
The DALI command set 104-118 translates commands entered at the application level to DALI commands. With a fully functional data-link-layer protocol, the next higher layer, DALI command set layer, may assume error-free transmission over the link. Therefore, the lower three layers can be transparent to the DALI command set and higher layers. This gives enormous flexibility in adopting

in this model.



different applications without changing the command set and user interface 112. For example, if the wireless lighting control network is targeted to a home environment, it requires short range and low power radio. If it is for an office or commercial building, it may require a longer communication range and more addressable nodes. Based on these application requirements, different open standards can be selected and implemented as the lower two layers

different open standards to meet different requirements for



Returning to Figure 1, a short address is assigned to the slave at block 203. However, prior to utilization of the DALI protocol, an initialization procedure 105—116 must take place and a short address is assigned to the slave. Each slave, such as a lighting device (e.g., ballast), must register with the master in order to communicate with the master, and to exchange control signals.

Page 5, in the paragraph beginning on line 9, change as follows:

Figure 2 shows the technique, in accordance with an exemplary embodiment of the invention, for associating each of the slave devices with a particular master device/remote control. A special enumeration mode is entered in block 201 and a request requests for



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enumeration is made, at block 202, fer to the master. An algorithm is utilized in block 203 to identify the slave. This algorithm may consist of any technique such as, sequential holding by the master of all the slaves, transmitting a signal to the slave and awaiting a response, etc. Once the particular slave is identified, the master assign—assigns a short address at block 204 in accordance with the DALI protocol, or other such technique. The master (e.g. a remote control) is then utilized to confirm a visual indication from the slave. For example, once an address is assigned to the slave by the master, the slave may blink off and on in certain sequence for a certain number of times. Whatever signal is agreed upon, the user then responds with a particular confirmation signal, such as depression of a specific key on a keypad.

Page 5, in the paragraph beginning on line 20, change as follows:

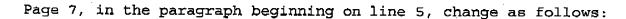
The foregoing confirmation step indicates that the user confirms that the particular device signaling visually is to be associated with the particular master device. Decision point 206 then returns the program to block 202 to process a new slave device. When all the slave devices have been processed so that they were associated with the proper master, the system returns to normal operation mode at 207.





Page 6, in the paragraph beginning on line 2, change as follows:

Depending on the open network standard 130 used in the system, the master has to identify the slave by- a predetermined algorithm. If the open network standard has its own enumeration procedure or algorithm defined, then the only work the master needs to do is to get the new device information through an API (application programming interface) 120 and utilize this information to proceed with the next steps in the initialization.



The concept of binding specific functions on a remote control to specific lighting devices is also addressed in a wireless environment by the present invention. The flowchart of Figure 3 is entered at 301 in which the special teaching mode, or binding mode, is entered. An At 302, an active slave is selected either automatically, or by the depression of a key on the remote control, based on the slave list that the master obtained during the initialization procedure. The slave feeds back with a visual indication so that the user knows which device is being active at the current moment. At such a time, an association is formed at 303 between master and the particular selected slave, for example, by the depression of a key on the remote control by the user. slave is then released at block 304, and decision point 305 checks to determine if any other slaves must be bound with specific



function keys. If so, a new active slave is selected, and the process repeats itself until each slave is "bound" with a particular function key or sequence of keys.